Social Media and the Mediation of Childbirth: So, What for Mothers, Maternity, and Midwifery Practice?

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Social media and the mediation of childbirth; so, what for mothers, maternity and midwifery practice?

Abstract (162 words)

Social media is fast becoming a global phenomenon with recent research providing insight into the complex inter-weaving relationship between the media and women and families over the childbirth continuum. There is a growing body of evidence which suggests a major cultural shift in the agency and information-seeking practices of women through social media. This perhaps suggests that services fall short of providing real and lived value to the women navigating through maternity systems in the United Kingdom, due to changes in culture and society. A deeper understanding of this phenomenon may help providers and practitioners offer care which better supports women's needs and help them to develop innovative new approaches for future service provision. The aim of this article is to examine the literature and develop a deeper understanding of how social media may impact upon women, childbearing and midwifery practice via six domains. This synthesis of the literature through a western cultural lens may also be relevant to an international audience.

Keywords: Social media, midwifery practice, information seeking, social construction, web 2.0, technology, maternity care

Article word count: 6350

Introduction

Excellence in care, clinical outcomes and patient experience are the ultimate goals of modern-day healthcare (Department of Health [DH], 2016). Midwifery care is located firmly within a feminist framework of woman centred principles. These promote the views, beliefs and values of women and families to support informed decision making in relation to pregnancy and birth, in partnership with healthcare professionals (Cumberledge, 2016; International Confederation of Midwives, 2013; Nursing and Midwifery Council [NMC], 2018; National Institute of

Healthcare Excellence [NICE], 2014; Royal College of Midwives, 2014; World Health Organization [WHO], 2018). Provision of evidence-based healthcare information is fundamental to achieving these aims. Whilst provider use of social media to help deliver this information is increasing, this may often be a one-way linear process, despite social media's potential to enable individualised conversational interaction to women. Web 2.0 is defined as the second phase of Internet evolution, characterised principally by "the change from static web pages to dynamic user-generated content and the growth of social media" ("Dictionary definition | web 2.0", 2019).

The worldwide digital population as of 2019 demonstrates over 4.4 billion people were active internet users and 3.5 billion were social media users ("Global digital population 2019 | Statistic", 2019). Data identifies over two billion active monthly users on Facebook and 1.9 billion active monthly users on YouTube's video streaming platform ("Global social media ranking 2019 | Statistic", 2019). Phillippi and Buxton (2010) identify web 2.0 as an unparalleled entity of common tools providing access to information through an interconnecting network, transforming methods of communication, interaction and content creation. Wikipedia ranked fifth most popular website on Google is an example of a type of social media where knowledge is constantly and collaboratively expanded by anonymous actual or self-proclaimed expert users to create general reference material (Benkler, 2011). Whilst some may challenge the credibility of information on this Commons Based Peer Production (CBPP) model website, internet users value its offering (Lucassen & Schraagen, 2010; Kittur & Suh et al., 2008). Benkler's CBPP concept can also be widely applied to many innovative and developing grassroots movements in maternity healthcare, one such example being The Positive Birth Movement (Hill, 2017).

At the end of quarter 3 in 2017, 95-100% of females aged 15-44 had access to the internet, with 86-95% having a smartphone (Jain et al., 2017). Social media provides endless opportunities for women and families navigating the transition to parenthood (Fleming et al., 2014; Gibson & Hanson, 2013; Lupton, 2016) via discussion forums (Johnson, 2014;

Pederson, 2014; Pedersen, 2016), blogs (Dekker & King et al., 2016; Johnson, 2014; Das, 2017; Ventola, 2014), social network platforms (Das, 2017), and more recently, video media, apps and podcasts (Frizzo-Barker & Chow-White, 2012; Hearn & Miller et al., 2013; Lupton & Pedersen, 2016). For example, Wallwiener and colleagues (2016) note that primigravid women and first-time mothers are more likely to use web 2.0 tools in particular, to enhance parenting, seek reassurance or find information prior to professional appointments. Wright, Matthai and Meyer, (2019) report online knowledge seeking increased women's confidence and self-assurance in decision making for labour and birth. Though it has been suggested that women perhaps also use digital technologies to compensate for inadequate provider information and hurried appointments (Kraschnewski et al. 2014). Nevertheless, women enjoy the instantaneous accessibility of web 2.0 tools, the ability to search for information online, and connect with other women 24/7 during pregnancy (Bjelke et al., 2016).

Kane (2017) argues that social media is not a technology, but instead a possibility for action or ‘affordance’. The evolvement of affordances enabled by the social media platforms ability to develop and innovate the technological infrastructure producing opportunities for diverse communication. Considered in this sense, healthcare bodies, maternity professionals and stakeholders have an opportunity to utilise social media and begin delivering solutions to accommodate the changing nature of women’s information seeking practices.

The aim of this article is to examine the literature and develop a deeper understanding of how social media may impact upon women, childbearing and midwifery practice via six domains (1) Global Influence, United Kingdom policy background and barriers to implementation; (2) Censorship of women; birth in the media, consumerism and patriarchy; (3) Social construction of social media, identity and networks; (4) Women’s needs; the story and the narrative; (5) Evidence based practice, shared decision making and autonomy; and (6) Future service design.

1. Global influence, United Kingdom policy background and barriers to implementation

Accessibility to information and communication technologies are a major global driver for government; increasing knowledge rights and opportunities for social, economic and political empowerment (United Nations [UN], 2005). The UN (2016), in partnership with civil and administration bodies deliver on the Sustainable Development Goals (SDGs), a number of which relate to reducing equity experienced in women's health and empowerment. Reducing the digital literacy gap is crucial to closing the digital gender gap and achieving several SDG's. For example; SDG 4, which seeks to "ensure inclusive and equitable quality education and to promote lifelong learning opportunities for all" (UN, 2016, p. 5). Further evidence also advocates the use of mobile health, also known as 'mhealth', to mobilise knowledge and enhance health communication in the developing world (Free et al., 2010; Hall et al., 2014; Waegemann, 2010).

In the United Kingdom (UK), various government reports highlight the role of technology in improving health outcomes and delivering financial improvement to the National Health Service (NHS) (Cabinet Office, 2017; DH, 2017; Public Health England, 2014). Briefings from The King's Fund however, suggest that this strategy has been fraught with confusing messages, unrealistic targets and lack of funding (Honeyman & Dunn et al., 2016). Others highlight that NHS providers as a whole have been slow to adopt digital innovation, despite individual and professional groups harnessing opportunities to effect powerful change (McCrea, 2014). The analysis of literature provided by Koteyko and colleagues (2015) highlight multiple and complex sociological factors impacting on social media and healthcare behaviours. They suggest that an evolutionary framework, which integrates familiar health maintenance activities into social media will enhance the reconfiguration of healthcare systems. Furthermore, they discuss healthcare provider anxiety over 'vulnerability' of lay users (in our context, women) exposed to all forms of knowledge both medical and alternative to be real concerns for culturally paternalistic healthcare systems bound by regulation and policy.

Deeply engrained medical dominance presents further ethico-legal issues when realising the potential of social media for women's empowerment. All these issues may subsequently act as barriers to implementation. To arrive at a deeper understanding of these issues, we explore the underlying portrayal of women in the media in via domain 2.

2. Censorship of women; paternalism, consumerism and birth in the media

Censorship of women

Ferguson (2014) synthesises a negative critique about social media and the impacts on women's empowerment suggesting an obsession with "youth and femininity" and a lack of women's perspective and individuality (Ferguson, 2014, p. 678). Media themes relating to obesity, visceral culture and the maternal body can be regularly observed under the spotlight. One such example being the public shaming of a mother branded a 'tramp' for nursing her baby in the street ("Mum labelled 'tramp' for breastfeeding", 2014). Within her 2012 essay collection, artist and essayist, Buller, explores the censorship and discrimination of the pre and postnatal maternal body (Buller, 2012). Here, she suggests that social perceptions in relation to the maternal body navigate complex extremes from scandalous and invisible to highly celebrated. In so doing, a generation of women are manufactured, who must explore deeply challenging internal reflection in order to attempt to reconcile these pressures (Mayoh, 2019). It is suggested these lead women to perceive that they must choose whether to act as either an 'activist against' or 'pacifist to' the pressures they experience. In turn, it is proposed that this may subconsciously affect their internal sense of power and agency which, in relation to health and wellness is key to understanding notions of women's submissive or seemingly insubordinate health behaviours during pregnancy and birth.

Paternalism

Adding to this complexity is patriarchal political influence and abuse for economic and political gain. One example of this can be seen in recent UK journalism, which suggest that midwives' pursuit of 'normal' birth endangers women and causes feelings of failure (Smyth, 2017;

Borland, 2017). These same writings also blame midwifery mistakes for episodes of stillbirth. Consequently, an increased fear in women and midwives due to such technocratic control both undermines and undervalues evidence-based physiological birthing processes in mainstream publics. This could be described as 'abhorrent', given the quantity of high-quality evidence available in support of safe birth in midwifery-led settings (Hollowell, 2011; Hollowell et al., 2015; NICE, 2014). Much can be gleaned about societal response to this biased journalism from the subsequent running commentary on social media. Women and midwives may as a result, use these threads as suitable proxy for individual truths when in reality much of this may boil down to the consumerist rhetoric of a post truth era. Therefore, the sociological and psychological impacts for maternity care are potentially vast.

Birth in the media

To compound this paternalistic undercurrent, Morris and McInerney (2010) highlight the interplay between technology, medical interventions and the powerlessness of birthing women in television shows aired in the United States of America. Perpetuating the notion presented by DeJoy (2010) of birth as a dangerous life-threatening event. Alternatively, Luce and colleagues (2016) offer insight about why women experience fear and anticipate negative outcomes in childbirth; that birth is missing as an everyday event in families and communities. Seemingly, women's realistic knowledge about pregnancy and childbirth may no longer be passed readily from generation to generation, leading women to turn to the Internet and media to learn about childbirth (Liechty, Coyne, Collier & Sharp, 2017). Instead, women may witness visual and verbal commentary which broadcasts over-medicalised birth, complexity and pain, leading to increased fear and unrealistic perceptions (Fleming et al, 2014; Hauck et al., 2007). Gleeson and colleagues (2018) also suggest that this change may be due to the shifting macro structures within society, such as traditional gendered roles, the demise of the extended family and restructure of modular families. This presents an opportunity for the tools of web 2.0 to be utilised by healthcare professionals to pro-actively support and engage women in their

knowledge of childbirth (Liechty, Coyne, Collier & Sharp, 2017; Nolan, Hendricks, Williamson & Ferguson, 2018) but further to this campaign for more nuanced journalism generally.

Consumerism

Research demonstrates midwives share concerns about digital technologies and the advancement of knowledge; querying the quantity and reliability of accessible information and poor interpretation by women (Bjelke et al., 2016; Johnsen, 2014). Thus, contributing to the disempowerment of women. However, this is a complex issue, because the medicalisation of childbirth has also witnessed technology updates such as the Pinard horn stethoscope being replaced by the digital fetal monitoring doppler. The Internet has subsequently been used as a consumerist marketing tool to influence culture and society to endorse the unsafe use of home dopplers (Lagan et al., 2010). Here, women can hear their own baby's heartbeat, unaware that a reassuringly rhythmic beat is not necessarily representative of a healthy baby. Midwives blame this important knowledge gap on the Internet, and social media in particular, for producing self-proclaimed expert communities of unreliable information (Johnsen, 2014). This example of consumerism and maintenance of a medical paradigm may both diminish women's intimate knowing of their pregnant body and devalue the professional skills of midwives. In addition, one could argue that this outlook breaches the Nursing and Midwifery Council's (2018) code of conduct, which advocates for women's freedom and agency. Understanding the complexities at play here is crucial. Blame cannot be easily apportioned in a consumerist society. Whilst the media may at times undermine midwifery professionalism, it also promotes the importance of campaigns like Each Baby Counts (Royal College of Obstetricians and Gynaecologists, 2015), both of which arguably reside within a paternalistic defensive practice framework. Consequently, long standing midwifery principles may become harder to maintain. A midwifery focus on using social media to support women's wellness, birthing knowledge and communications with healthcare may in turn counter some of these complexities (Nolan, Hendricks, Williamson & Ferguson, 2018).

3. Social Construction of Social Media, Identity and Networks

Despite the seemingly negative critique of social media and the impacts on women presented in the last domain, this domain explores how online identity and networks provide a powerful force to be reckoned. Stark and Fins (2012) provide a poetic and somewhat beautiful account of the reciprocal dance between the authors and readers engaged in the posts, blogs, videos and tweets on social media. They describe the social media construct:

> Constituent exchanges, conversational threads, pronouncements, and postings, may be conceptualized as less a static repository of isolated comments than an evolving artefact of social construction, built by authors and readers. It is a symphonic piece, never a solo performance, in which truth, fiction, fact, and emotion come together to create something no single player could perform as progressive exchanges morph meanings from start to finish. (Stark & Fins, 2012, p. 1)

This description identifies the complexity of social media as a concept in terms of production especially related to healthcare, in that it is never fixed. In fact, sociotechnical boundaries are often blurred when attempting to decipher cause and effect, structure and agency (Kierans & Bell et al., 2016). The ability to understand social media as a contemporary dimension of modern society, applied to trends in childbirth and parenting, (e.g. hypnobirthing, birth experience and discussion about medical intervention) are suggested to be as much about western neo-liberal capitalism as CBPP enterprise (Fuchs, 2012). As such, the lines between ‘producers’ and ‘consumers’ of knowledge, goods and services may have become somewhat blurred. Wright, Matthai and Meyer (2019) suggest a “greater clinical understanding of social media consumption and its influences” is necessary to inform future practice (Wright, Matthai & Meyer, 2019 p.1).

Bijker and colleagues (2012) describe various sociological theories such as the Actor Network Theory (ANT), the Social Construction of Technology (SCOT) and Large-Scale Technological Systems (LTS) applied to digital technologies and human action. Digital technologies alter individual powers to act and where and when they act. Yet these authors suggest that

conventional structuring factors such as economic indices, ethnic background and gender can be hidden in digital community and society. This therefore makes it more difficult to interpret. In this respect, social media could be viewed as a driver for human inclusion and mutuality but also a double-edged sword, as it has the potential to minimise important social and cultural norms. For example, Roger's (2015) suggests that the majority of 'mummy bloggers' are heterosexual, white, middle class mothers and therefore subvert the diversity and experience of motherhood, which could lead to the marginalisation of women who do not conform or fit suggested ideals. This discussion about online identity and networks may help develop understanding of the empowered woman as a producer and consumer of knowledge which, via domain 4, may subsequently transform knowledge seeking practices.

4. Women's needs; the story and the narrative

Birth culture and experience have been placed top of the agenda especially where perinatal and postnatal mental health are concerned, driving social media campaigns like the Mental Health Alliance 'Everyone's Business' (Call to ACT, 2014; Das, 2018; MBRRACE, 2015). However, social media sites also offer a wealth of information which can inform both policy and practice.

Static internet websites, provided by institutional bodies and charities, offer repositories of information about childbirth and parenting, of which women are reported to use (Hearn et al., 2013). Daneback and Plantin's (2014) literature review outlines how websites focus on wide ranging specific subjects such as pregnancy loss, infertility, breastfeeding and parents of children with disabilities. Yet it has been suggested that content specific websites have been medically positioned and lack the social or emotional aspects that come with certain diagnoses (Himmel et al., 2005; Zaidman-Zait & Jamieson, 2007). More recent research, which attempt to understand the influence of narratives on social media and have since surfaced (Sanders, 2018).

Social sites of Web 2.0, for example, discussion forums found on Facebook and Mumsnet, enable women the opportunity to interact and share experiences and offer advice

anonymously with other women (Baker & Yang, 2018; Pederson, 2014; Pedersen, 2016). In particular, they support women to establish 'the norm' without experiencing embarrassment, stigma and judgement (Pedersen & Lupton, 2016). Litchman et al (2019) explore the value of personal blogs, particularly the reproductive health experiences of women with disabilities. These blogs offer important insight into the challenges faced, and whilst providing peer support to women they may also be used to educate students and healthcare professionals about unmet needs, stigma and stereotyping experienced by these groups.

In her work, 'Birth Stories', funded by the British Academy, Das (2018) examines how the media shapes intricate birth knowledge, how women access and interpret it and form expectations for birth. Das explains that "these forms of communication, may work to selectively silence and marginalize, or highlight and bring to relief, the voices and experiences of others" (Das, 2018 p. 21). Das refers to social media forums as 'baggage-laden subjects of intensive motherhood' explaining the subtle contrast between two narratives. One empowering – supportive of feminist notions of woman-centred care led by midwives respectful of the physiology of birth, and as Kitzinger (2011) asserts the power of the women who has revealed her intimate passage to motherhood. The other narrative features more frequently and with pre-censored (mediated) 'trigger' warnings describes disempowering 'horror stories' of traumatic birth, which may expose women to prolonged physical and psychological damage. Johnson's (2014) variation on this concept proposes that social media transforms the knowledge seeking practices of mothers whilst promoting vital 'intimate mothering publics'. In this context, midwives may be best placed to support women by opening up a space for these types of conversation. Though midwives may challenge how this opportunity could arise, given some of the bureaucratic and time management challenges apparent in maternity services.

Rogers (2015) illuminates how online actors construct their maternal identities to "subvert the scripts of their families, cultures and nations in their quest for self-knowledge, agency and artistic expression" (Rogers, 2015, p. 259) coining the term 'maternal essayists' as a form of

maternal scholarship. By doing so, these online communicators rework traditional narratives of motherhood and reconcile pressures and trends of parenting to develop new concepts for modern women and society. However, the work of Nixon and colleagues (2016) points to concerns over the impersonality of online communities, where distance can create 'coldness' and the success of groups depends on the value attitudinal behaviours of the individuals posting within it. This is concerning, as those seeking support and empathy in relation to matters such as stillbirth or mental health may be more vulnerable to unkind, and emotionless comments. The lack of physicality, ability to read body language and tone of voice may also greatly impact on contextualised meaning. In this way, social media could present as a dangerous place for women's emotional health and wellbeing.

5. Evidence based practice, shared decision making and autonomy

The importance of women receiving explicit as well as experimental knowledge is of course paramount, and research reiterates the frequency with which women routinely draw on professional sources of knowledge to support their decision making. For example, according to Johnsen (2014), midwives offer important verification, a professional viewpoint and processing opportunities for the childbearing woman. This suggests that the traditional 'woman-professional' relationship has remained intact thus far.

Whilst it is possible for individuals to seek academic research, they may lack adequate skills in synthesis or the ability to ascertain the quality of evidence, leading to inaccurate conclusions, inappropriate decisions and management of care (Lagan et al., 2010). Equally, individuals may use social media to process their own feelings and use this as a proxy for 'truth' because it resonates so powerfully within them. These issues may present as ethical dilemmas for midwives situated in a 'rights-based' approach to care which promotes the views, beliefs and values of women and families, particularly regarding the principals of advocacy, choice and informed consent.

Romano and colleagues (2010) thought provoking paper about decision making in relation to women exploring Vaginal Birth after Caesarean Section (VBAC) highlights the importance of the e-Patients White Paper (Ferguson and e-Patients Scholars Working Group, 2007). The latter challenge the traditional top-down dissemination of information, suggesting that it leads to poorer outcomes and compromises care satisfaction and autonomy. Romano and colleagues present internet VBAC forums as a safe space for women to explore and understand the benefits and risks associated with VBAC. They do so through a cohesive community of women, who share the desire for experiential knowledge and understanding from others who have successfully negotiated what they perceive to be highly paternalistic services, to achieve a VBAC.

Greg and Driscoll (2008) offer insights about presence, intimacy and communities:

> Digital literacies and intimacies being fostered amongst friends in online environments may in fact offer the best protection against the invasive dangers presumed to originate outside those communities, including with those who readily seek to turn the leisure choices of the young into commodifiable skills for a global economy. (Greg & Driscoll, 2008, p. 129)

Social media technologies or ‘affordances’ could offer a protective factor to the commodification of women and the financial gains of medicalised birth.

Mol’s (2008) concept of autonomy can also be well applied to the example of VBAC forums and other similar social media enterprises. In doing so, rather than offer increased choice, human connectivity and interdependence may further restrict individuals due to societal influences, mediation, and the pressure to conform and perform. The application of cultural norms. Likewise, in Stark and Finns (2012) previous poetic description, Gregg and Driscoll (2008) discuss online culture and the constructs of identity and community by framing ‘presence’ as not only person-centred interaction but in the tenacious subtext of individual tastes and/or operations in the creation (production) of online flair and eloquence. In this

sense, presence resides within the habitat (community) of the network. That habitat then creates meaning. Presented in this way, Mol's argument is clear - autonomy is a myth.

6. Future service design

The literature synthesised within this article suggests that the Internet and the tools of Web 2.0 are being used by women and families over the childbirth continuum. This may likely lead to the transformation of the current client-professional relationship. More than a decade ago, Greg and Driscoll (2008) called for all maternity services to have a digital media strategy. Whilst NHS Trusts are now likely to have a social media policy which is underpinned by regulatory bodies and addresses both professional conduct and client confidentiality matters (NMC, 2019), there is seemingly a paucity of strategic innovations which harness the full potential of using social media. The 2016 Better Births Report advocates that technology should be embedded into routine maternity services enhancing accessibility to individualised evidence-based information for women (Cumberledge, 2016). However, this falls short in offering a descriptive account of what this might entail. Additionally, individual midwives may not wholly understand the concepts surrounding the internet and social media usage. This remains a concern for those tasked with digital innovation and equipping the profession for the future workplace.

Despite this, examples of innovation can be found. Basildon and Thurrock University Hospitals launched Maternity Direct+ in 2015. This particular innovation comprised a Trust based Facebook page, where women could confidentially contact a midwife online, with non-urgent questions relating to their pregnancy (Tranter & McGraw, 2017). This online space was also used to promote public health issues and advertise trust specific initiatives. Unpublished outcomes suggested a high level of demand and user satisfaction for the service. This initiative also overcomes systemic social media education issues by harnessing the skills of a specific named Internet midwife, who would have the capability to educate others.

Service providers utilising local contextual information to enhance service delivery, for example; Trusts operating in areas of poverty and high levels of smoking are often part of

national trials such as the AFFIRM study which aims to reduce stillbirth (Norman, 2017). These Trusts would be able to use social media to broadcast often-unknown research activities to women. Utilising social media in this way could in turn, raise the profile of services that often come under attack in the media. The Maternity Direct+ example, in particular may provide a safe area for women who have been using forums to explore the lived-experience of other women, to speak to a midwife, ask questions and reconcile their thoughts around birth.

Overall, social media has the potential to reduce secondary care contacts for generalised, non-urgent pregnancy questions whilst also supporting women with individualised answers (Himmel et al., 2005). In addition, barriers to care, such as poverty, lack of finances or childcare to attend appointments, geographical issues and time efficiency for midwives may be reduced with the use of social media (Daneback & Plantin, 2014). Chan & Chen (2019) discuss the potential for social media and mhealth apps to support women's physical health including behaviour change in relation to diet and lifestyle, control of gestational diabetes mellitus and asthma with a moderate to large effect size. Stevenson and colleagues (2019) discuss the value of social media, Facebook in particular in communicating and retaining consented cohort participants for pregnancy research studies which may add a further advantage in gaining important long-term evidence to support future practice.

Conclusions

Via six domains, this article offers new insights into the technological, social and cultural mediation of childbirth through Web 2.0. Here, the relevant wider literature drawn together is presented narratively, and synthesised through the lens of western culture. There has been a change in the way in which women find community and seek explicit, embodied and experimental knowledge about childbirth. Yet the needs of modern women in relation to these issues may not be being met within the current framework of care. Maternity systems may therefore require enhanced funding and knowledge to include web-based education and training for midwives, so that innovative digital tools can be embraced to offer support which truly integrates woman centred experience and satisfaction into care. In so doing, any

expanding crevasses between midwifery and the development of meaningful relationships with women may be curtailed.

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